

# Jagged1 (H-66): sc-11376

## BACKGROUND

The LIN-12/Notch family of transmembrane receptors is believed to play a central role in development by regulating cell fate decisions. Ligands for Notch include Jagged1, Jagged2 and Delta. Jagged is a membrane protein and can activate Notch and prevent myoblast differentiation by inhibiting the expression of muscle regulatory and structural genes. It is involved in mammalian cardiovascular development and in cell-fate decisions during hematopoiesis. Jagged is expressed in adult and fetal tissues, and expression is upregulated in cervical squamous cell carcinoma. Familial tetralogy of Fallot, the most common form of complex congenital heart disease, is caused by a mutation in the Jagged1 gene.

## REFERENCES

1. Laborda, J., et al. 1993. *dlk*, a putative mammalian homeotic gene differentially expressed in small cell lung carcinomas and neuroendocrine tumor cell line. *J. Biol. Chem.* 268: 3817-3820.
2. Simpson, P. 1994. *The Notch receptors*. Austin, TX: R.G. Landes Company.

## CHROMOSOMAL LOCATION

Genetic locus: JAG1 (human) mapping to 20p12.2; Jag1 (mouse) mapping to 2 F3.

## SOURCE

Jagged1 (H-66) is a rabbit polyclonal antibody raised against amino acids 207-272 of Jagged1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

Jagged1 (H-66) is recommended for detection of Jagged1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Jagged1 (H-66) is also recommended for detection of Jagged1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Jagged1 siRNA (h): sc-37202, Jagged1 siRNA (m): sc-37203, Jagged1 shRNA Plasmid (h): sc-37202-SH, Jagged1 shRNA Plasmid (m): sc-37203-SH, Jagged1 shRNA (h) Lentiviral Particles: sc-37202-V and Jagged1 shRNA (m) Lentiviral Particles: sc-37203-V.

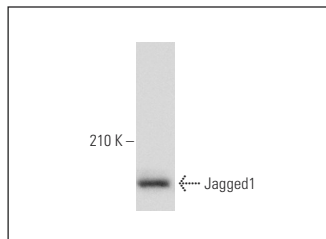
Molecular Weight of Jagged1: 150 kDa.

Positive Controls: MIA PaCa-2 cell lysate: sc-2285, mouse embryo extract: sc-364239 or RAW 264.7 whole cell lysate: sc-2211.

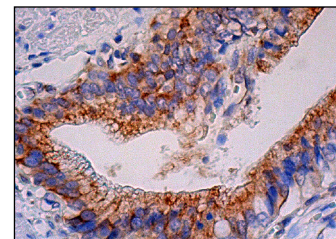
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



Jagged1 (H-66): sc-11376. Western blot analysis of Jagged1 expression in MIA PaCa-2 whole cell lysate.



Jagged1 (H-66): sc-11376. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing membrane and cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

1. LaVoie, M.J., et al. 2003. The Notch ligands, Jagged and Delta, are sequentially processed by  $\alpha$ -secretase and presenilin/ $\gamma$ -secretase and release signaling fragments. *J. Biol. Chem.* 278: 34427-34437.
2. Monsalve, E., et al. 2006. Notch 1 upregulation and signaling following macrophage activation modulates gene expression patterns known to affect antigen-presenting capacity and cytotoxic activity. *J. Immunol.* 176: 5362-5373.
3. King, A.M., et al. 2007. Accelerated Notch-dependent degradation of E47 proteins in aged B cell precursors is associated with increased ERK MAPK activation. *J. Immunol.* 178: 3521-3529.
4. Niimi, H., et al. 2007. Notch signaling is necessary for epithelial growth arrest by TGF- $\beta$ . *J. Cell Biol.* 176: 695-707.
5. Conboy, L., et al. 2007. Notch signalling becomes transiently attenuated during long-term memory consolidation in adult Wistar rats. *Neurobiol. Learn. Mem.* 88: 342-351.
6. Karlsson, C., et al. 2009. Identification of a stem cell niche in the zone of Ranvier within the knee joint. *J. Anat.* 215: 355-363.
7. Ochi, A., et al. 2012. Toll-like receptor 7 regulates pancreatic carcinogenesis in mice and humans. *J. Clin. Invest.* 122: 4118-4129.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **Jagged1 (E-12): sc-390177** or **Jagged1 (21): sc-135955**, our highly recommended monoclonal alternatives to Jagged1 (H-66). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Jagged1 (E-12): sc-390177**.